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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,668	03/19/2001	Mikio Hayashihara	04329.2540	9037

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
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WASHINGTON, DC 20005

EXAMINER

CORSARO, NICK

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 03/22/2004

36

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/810,668

Applicant(s)

HAYASHIHARA, MIKIO

Examiner

Nick Corsaro

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-15 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: A heading is missing for description of the drawings. A heading such as "Brief Description of the Drawings" should be added.

Appropriate correction is required.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "ALLEVIATING ADJACENT CELL/BAND INTERFERENCE VIA MOBILE STATION POWER CONTROL TOWARD OPTIMAL MINIMAL POWER".

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiland et al. (5,452,473) in view of Koohgoli et al. (5,497,505).

Consider claim 1, Weiland discloses a radio communication device of a radio communication system and connectable to a base station (see col. 3 lines 10-17). Weiland discloses a gain controlled amplifier configured to amplify a transmit signal (see col. 4 lines 19-45). Weiland discloses a limiter configured to set a maximum value of the output of the gain

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controlled amplifier according to an up-link frequency stored at the mobile unit specified by the base station (see col. 3 lines 55-67, and col. 4 lines 1-60).

Weiland does not specifically disclose an uplink frequencies specified by the base station. Koohgoli teaches an uplink frequencies specified by the base station (see col. 5 lines 5-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Weiland, and have the uplink frequency specified by the base station, as taught by Koohgoli, thus allowing frequencies to be assigned that cause minimal interference, as discussed by Koohgoli, (col. 1 lines 44-67 and col. 2 lines 1-25).

Consider claim 2, Weiland discloses a memory configured to store a maximum value for each of frequencies in a pre-assigned frequency band and a data setter configured to read the maximum value from the memory and to supply the read maximum value to the limiter (see col. 4 lines 65-67, and col. 5 lines 1-33). Weiland does not specifically disclose the frequency specified by the base station. Koohgoli teaches frequencies specified by the base station (see col. 5 lines 5-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Weiland, and have the uplink frequency specified by the base station, as taught by Koohgoli, thus allowing frequencies to be assigned that cause minimal interference, as discussed by Koohgoli, (col. 1 lines 44-67 and col. 2 lines 1-25).

Consider claim 3, Weiland discloses a memory configured to store a function for the maximum value with each frequency in a pre-assigned frequency band as a parameter, and an arithmetic operation circuit configured to determine the maximum value according to the up-link frequency (see col. 4 lines 65-67, and col. 5 lines 1-12). Weiland does not specifically disclose the frequency specified by the base station. Koohgoli teaches frequencies specified by the base

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station (see col. 5 lines 5-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Weiland, and have the uplink frequency specified by the base station, as taught by Koohgoli, thus allowing frequencies to be assigned that cause minimal interference, as discussed by Koohgoli, (col. 1 lines 44-67 and col. 2 lines 1-25).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weiland in view of Koohgoli as applied to claim 1 above, and further in view of Rautiola et al. (5,752,197).

Consider claim 4 and 5, Weiland and Koohgoli do not specifically disclose the maximum value is set low as the frequency is close to the frequency band assigned to a different radio communication system. Rautiola teaches the maximum value is set low as the frequency is close to the frequency band assigned to a different radio communication system (see col. 2 lines 65-67, col. 3 lines 1-20, col. 4 lines 15-67, col. 6 lines 37-67 and col. 7 lines 1-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Weiland and Rautiola, and have the maximum value set low as the frequency is close to the frequency band assigned to a different radio communication system, as taught by Rautiola, thus allowing reduced interference with those systems, as discussed by Rautiola, (col. 2 lines 12-30).

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weiland in view of Koohgoli as applied to claim 1 above, and further in view of Bender et al. (6,366,778).

Consider claim 6, Weiland discloses the device, as modified by Koohgoli, wherein the mobile sets the power as per frequency, as discussed above. Weiland further discloses that the mobile calculates the difference to calculate a correction value (see col. 4 lines 65-67, and col. 5

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lines 1-12). Weiland and Koohgoli do not specifically disclose sending the difference to the base station. Bender teaches sending the difference to the base station (see col. 16 lines 54-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Weiland and Koohgoli, and transmit the difference, as taught by Bender, thus allowing better performance of the system in zones adjacent to other base stations, as discussed by Bender (col. 2 lines 20-30).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rautiola et al. (5,752,197) in view of Koohgoli et al. (5,497,505)

Consider claim 7, Rautiola discloses a transmission power control method for a radio communication device of a radio communication system and with an inherent gain controlled amplifier (see col. 2 lines 65-67, and col. 3 lines 1-7, where Rautiola discusses the mobile is commanded to set its power output in a power control algorithm, therefore using a gain controlled amplifier). Rautiola discloses amplifying a transmission signal by the gain-controlled amplifier (see col. 2 lines 65-67, col. 3 lines 1-7, and col. 4 lines 30-55). Rautiola discloses setting a maximum of an output of the gain controlled amplifier according to an up-link signal power specified by the base such that the closer the up-link signal frequency is to the frequency band assigned to a different radio communication system, the lower the maximum is set (see col. 4 lines 17-67, col. 5 lines 1-57, and col. 3 lines 1-33).

Rautiola does not specifically disclose a frequency specified by the base station. Koohgoli teaches a frequency specified by the base station (see col. 5 lines 5-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Rautiola, and have the uplink frequency specified by the

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base station, as taught by Koohgoli, thus allowing frequencies to be assigned that cause minimal interference, as discussed by Koohgoli, (col. 1 lines 44-67 and col. 2 lines 1-25).

Allowable Subject Matter

6. Claims 8-15 are allowed.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(6,611,506), Huang discloses evaluating load in zones where interference is a problem.

8. Any inquiry concerning this communication should be directed to Nick Corsaro at telephone number (703) 306-5616.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung, can be reached at (703) 308-7745. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth, Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 customer Service Office whose telephone number is (703) 306-0377.

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A handwritten signature in black ink, appearing to read "Nick Corsaro", with a long horizontal flourish extending to the right.

Nick Corsaro

Primary **NICK CORSARO**
PATENT EXAMINER